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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/025,635 | 02/18/1998 | SHENG-ZHI PANG | 19603/1552(1) | 9815 |

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EXAMINER

KUBELIK, ANNE R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1638 | |

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/025,635 | PANG ET AL. |
| | Examiner | Art Unit |
| | Anne R. Kubelik | 1638 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 05 March 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) See Continuation Sheet is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-5,9-12,16-19,23-25,27-29,31-36,40-43,46-50,53-62,66-74,77-81 and 95-105 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 1-5,9-12,16-19,23-25,27-29,31-36,40-43,46-50,53-62,66-74,77-81 and 95-105.

DETAILED ACTION

1. Claims 1-5, 9-12, 16-19, 23-25, 27-29, 31-36, 40-43, 46-50, 53-62, 66-74, 77-81 and 95-105 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Groups I-VII have all been examined and claims representing all groups are currently allowed. Thus, the restriction among the groups is withdrawn.
4. The objections to claims 19-20 and 100 under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of previous claims, are withdrawn in light of Applicant's amendment to the claims.

Claim Objections

5. Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1 recites that the DNA encodes a viral coat protein, while dependent claim 11 recites that it could encodes a coat protein or is another DNA; thus claim 11 fails to further limit claim 1.

Claim Rejections - 35 USC § 112

6. Claims 1-5, 9-12, 16-19, 23-25, 27-29, 31-36, 40-43, 46-50, 53-62, 66-74, 77-81 and 95-105 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The rejection is repeated for the reasons of record as set forth in the Office action mailed 2 December 2003, as applied to claims 1-5, 9-12, 16-20, 23-25, 27-29, 31-36, 40-43, 46-50, 53-62, 66-74, 77-81 and 95-103. Applicant's arguments filed 5 March 2004 have been fully considered but they are not persuasive.

Applicant urges that the rejection is traversed in view of the amendments (response pg 18).

This is not found persuasive because DNA constructs comprising viral DNAs that are insufficient in length to impart a trait, wherein the viral DNAs can include those encoding a coat protein, those encoding a replicase, those not encoding a protein, and combinations thereof, and comprising second DNAs are not described within the full scope of the claims.

Furthermore, Applicant does not describe plants having the myriad of potential traits as broadly claimed or traits that can be encoded by DNA constructs (as in claims 19 and 95, and those dependent upon them).

7. Claims 1-5, 9-12, 16-19, 23-25, 27-29, 31-36, 40-43, 46-50, 53-62, 66-74, 77-81 and 95-105 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. Dependent claims are included in all rejections. The rejection is modified from the rejection set forth in the Office action mailed 2 December 2003, as applied to claims 1-5, 9-12, 16-20, 23-25, 27-29, 31-36, 40-43, 46-50, 53-62, 66-74, 77-81 and 95-103. Applicant's arguments filed 5 March 2004 have been fully considered but they are not persuasive.

Applicant urges that the rejection is traversed in view of the amendments (response pg 18).

This is not found persuasive because the following rejections remain or are new:

It is unclear in claims 1 and 104-105 if the DNA encodes a viral coat protein from the virus to which resistance is imparted, or if the coat protein is from another virus.

It is unclear in claims 2, 47 and 71 if the at least one additional DNA molecules are fragments from the same gene as the first DNA molecule or if the DNA molecules are heterologous to one another. It is also unclear if the plurality of different first DNA molecules together impart a single trait to plants or if they each impart different traits to plants.

Claim 3, 10, 25, 34, 48, 60 and 72 lack antecedent basis for the limitation “the trait” in line 2.

Claim 46 is indefinite in its recitation of “conditions effective to impart a increase viral resistance”. It is unclear what those conditions are.

Claim 57 and 81 lack antecedent basis for the limitation “the plants transformed with said DNA construct” in line 3.

Claim 71 lacks antecedent basis for the limitation “”said at least one additional DNA molecules”.

It is unclear in claim 95 if the plurality of DNA molecules are fragments from the same gene or if all the DNA molecules are heterologous to one another. Because they impart a single trait to plants, it suggests that they are not heterologous to one another and are all from the same gene.

Claim 95 is indefinite of its recitation of “fragments of DNA molecules … which … have a length insufficient to independently impart a trait”. It is unclear if it is the fragment or the first DNA molecule that has a length insufficient to impart the trait.

Conclusion

8. No claim is allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (703) 308-5059. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm. Sometime in January 2004, the examiner's phone number will change to 571-272-0801.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (703) 308-0198.

Anne R. Kubelik, Ph.D.
May 12, 2004



ANNE KUBELIK
PATENT EXAMINER